

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-2 (Canceled).

Claim 3 (Previously Presented): The device according to claim 19, wherein the micro-bodies are granular bodies and have a radius of not more than 100 nm.

Claim 4 (Previously Presented): The device according to claim 19, wherein the micro-bodies are rod-shaped bodies and have distal ends with a radius of curvature of not more than 50 nm.

Claim 5 (Previously Presented): The device according to claim 19, wherein the micro-bodies are rod-shaped and hollow bodies, and a filler layer consisting essentially of a conductive material is disposed in the micro-bodies.

Claim 6 (Previously Presented): The device according to claim 19, wherein the micro-bodies are rod-shaped bodies, and 50% to 100% of the micro-bodies are oriented within an angular range of $\pm 20^\circ$ relative to a major surface of the support substrate, where the cathode electrode is disposed.

Claim 7 (Previously Presented): The device according to claim 19, wherein the metal layer comprises a resistance ballast layer containing an additive material, which increases a resistance of the metal layer.

Claim 8 (Previously Presented): The device according to claim 7, wherein the metal layer has a resistivity of $10^{-8} \Omega \cdot m$ to $10^{-4} \Omega \cdot m$.

Claim 9 (Previously Presented): The device according to claim 19, wherein the micro-bodies are partly buried in the metal plating layer.

Claim 10 (Previously Presented): The device according to claim 19, wherein the micro-bodies are entirely buried in the metal layer.

Claim 11 (Canceled).

Claim 12 (Previously Presented): The device according to claim 19, further comprising:

a surrounding member cooperating with the support substrate to form a vacuum discharge space that surrounds the arrays of cathode electrodes and the arrays of gate electrodes; and

an anode electrode disposed on the surrounding member at a position opposing the arrays of cathode electrodes and the arrays of gate electrodes.

Claim 13 (Canceled).

Claim 14 (Previously Presented): The device according to claim 20, wherein the surrounding member comprises a transparent opposite substrate opposing the support substrate, the anode electrode comprises a transparent electrode, and the transparent electrode and a fluorescent layer are stacked on the opposite substrate in the vacuum discharge space.

Claim 15 (Previously Presented): The device according to claim 20, wherein the metal material is selected from the group consisting of Mo, Ta, W, Ta, Ni, Cr, Au, Ag, Pd, Cu, Al, Sn, Pt, Ti, and Fe.

Claim 16 (Previously Presented): The device according to claim 20, wherein the micro-bodies are granular bodies and have a radius of not more than 100 nm.

Claim 17 (Previously Presented): The device according to claim 20, wherein the micro-bodies are rod-shaped bodies and have distal ends with a radius of curvature of not more than 50 nm.

Claim 18 (Canceled).

Claim 19 (Currently Amended): A field emission cold cathode device of a lateral type comprising:

a support substrate;

arrays of cathode electrodes and arrays of gate electrodes alternately disposed on the support substrate to define a plurality of pairs of a cathode electrode and a gate electrode in a matrix format, such that the cathode electrode and the gate electrode of each of the plurality of pairs have a first side surface and a second side surface, respectively, which oppose each other with a gap interposed therebetween;

an emitter disposed on the first side surface to oppose the second surface and configured to emit electrons, the emitter comprising a metal layer formed on the cathode

electrode, and a plurality of granular or rod-shaped micro-bodies supported by the metal layer in a dispersed state and consisting essentially of a metal material; and

a gate projection disposed on the second side surface to oppose the first side surface, the gate projection comprising a gate metal layer consisting essentially of the same metal material as that of the metal layer, and a plurality of gate micro-bodies supported by the gate metal layer in a dispersed state and consisting essentially of the same metal material as that of the micro-bodies, wherein the metal material is selected from the group consisting of Mo, Ta, W, Ta, Ni, Cr, Au, Ag, Pd, Cu, Al, Sn, Pt, Ti, and Fe.

Claim 20 (Previously Presented): A vacuum micro-device comprising:

a support substrate;

arrays of cathode electrodes and arrays of gate electrodes alternately disposed on the support substrate to define a plurality of pairs of a cathode electrode and a gate electrode in a matrix format, such that the cathode electrode and the gate electrode of each of the plurality of pairs have a first side surface and a second side surface, respectively, which oppose each other with a gap interposed therebetween;

an emitter disposed on the first side surface to oppose the second surface and configured to emit electrons, the emitter comprising a metal layer formed on the cathode electrode, and a plurality of granular or rod-shaped micro-bodies supported by the metal layer in a dispersed state and consisting essentially of a metal material;

a gate projection disposed on the second side surface to oppose the first side surface, the gate projection comprising a gate metal layer consisting essentially of the same material as that of the metal layer, and a plurality of gate micro-bodies supported by the gate metal layer in a dispersed state and consisting essentially of the same material as that of the micro-bodies.

a surrounding member cooperating with the support substrate to form a vacuum discharge space that surrounds the arrays of cathode electrodes and the arrays of gate electrodes; and

an anode electrode disposed on the surrounding member at a position opposing the arrays of cathode electrodes and the arrays of gate electrodes.

Claim 21 (Previously Presented): The device according to claim 19, wherein each of the metal layer and the gate metal layer consists of a metal plating layer.

Claim 22 (Previously Presented): The device according to claim 20, wherein each of the metal layer and the gate metal layer consists of a metal plating layer.